

Express mail number EV 485937241 US dated 10 October 2006

PTO-1390 (Rev. 07-2005)

Approved for use through 3/31/2007. OMB 0651-0021

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

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| TRANSMITTAL LETTER TO THE UNITED STATES DESIGNATED/ELECTED OFFICE (DO/EO/US) CONCERNING A SUBMISSION UNDER 35 U.S.C. 371 | | ATTORNEY'S DOCKET NUMBER 1-17149 |
| INTERNATIONAL APPLICATION NO. PCT/EP2004/003377 | INTERNATIONAL FILING DATE 31 March 2004 (31.03.2004) | U.S. APPLICATION NO. (If known, see 37 CFR 1.5) 10/553,312 |
| TITLE OF INVENTION MICROREACTOR COMPOSED OF PLATES AND COMPRISING A CATALYST | | |
| APPLICANT(S) FOR DO/EO/US Georg Markowz et al | | |
| Applicant herewith submits to the United States Designated/Elected Office (DO/EO/US) the following items and other information: | | |
| <p>1. <input type="checkbox"/> This is a FIRST submission of items concerning a submission under 35 U.S.C. 371.</p> <p>2. <input checked="" type="checkbox"/> This is a SECOND or SUBSEQUENT submission of items concerning a submission under 35 U.S.C. 371.</p> <p>3. <input type="checkbox"/> This is an express request to begin national examination procedures (35 U.S.C. 371(f)). The submission must include items (5), (6), (9) and (21) indicated below.</p> <p>4. <input type="checkbox"/> The US has been elected (Article 31).</p> <p>5. <input type="checkbox"/> A copy of the International Application as filed (35 U.S.C. 371(c)(2)) <ul style="list-style-type: none"> a. <input type="checkbox"/> is attached hereto (required only if not communicated by the International Bureau). b. <input type="checkbox"/> has been communicated by the International Bureau. c. <input type="checkbox"/> is not required, as the application was filed in the United States Receiving Office (RO/US). </p> <p>6. <input type="checkbox"/> An English language translation of the International Application as filed (35 U.S.C. 371(c)(2)) <ul style="list-style-type: none"> a. <input type="checkbox"/> is attached hereto. b. <input type="checkbox"/> has been previously submitted under 35 U.S.C. 154(d)(4). </p> <p>7. <input type="checkbox"/> Amendments to the claims of the International Application under PCT Article 19 (35 U.S.C. 371(c)(3)) <ul style="list-style-type: none"> a. <input type="checkbox"/> are attached hereto (required only if not communicated by the International Bureau). b. <input type="checkbox"/> have been communicated by the International Bureau. c. <input type="checkbox"/> have not been made; however, the time limit for making such amendments has NOT expired. d. <input type="checkbox"/> have not been made and will not be made. </p> <p>8. <input type="checkbox"/> An English language translation of the amendments to the claims under PCT Article 19 (35 U.S.C. 371(c)(3)).</p> <p>9. <input checked="" type="checkbox"/> An oath or declaration of the inventor(s) (35 U.S.C. 371(c)(4)).</p> <p>10. <input type="checkbox"/> An English language translation of the annexes of the International Preliminary Examination Report under PCT Article 36 (35 U.S.C. 371(c)(5)).</p> | | |
| Items 11 to 20 below concern document(s) or information included: <p>11. <input checked="" type="checkbox"/> An Information Disclosure Statement under 37 CFR 1.97 and 1.98.</p> <p>12. <input type="checkbox"/> An assignment document for recording. A separate cover sheet in compliance with 37 CFR 3.28 and 3.31 is included.</p> <p>13. <input type="checkbox"/> A preliminary amendment.</p> <p>14. <input type="checkbox"/> An Application Data Sheet under 37 CFR 1.76.</p> <p>15. <input type="checkbox"/> A substitute specification.</p> <p>16. <input checked="" type="checkbox"/> A power of attorney and/or change of address letter. (combined with Declaration)</p> <p>17. <input type="checkbox"/> A computer-readable form of the sequence listing in accordance with PCT Rule 13ter.2 and 37 CFR 1.821- 1.825.</p> <p>18. <input type="checkbox"/> A second copy of the published International Application under 35 U.S.C. 154(d)(4).</p> <p>19. <input type="checkbox"/> A second copy of the English language translation of the international application under 35 U.S.C. 154(d)(4).</p> | | |

This collection of information is required by 37 CFR 1.414 and 1.491-1.492. The information is required to obtain or retain a benefit by the public, which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 15 minutes to complete, including gathering information, preparing, and submitting the completed form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Mail Stop PCT, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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|---|--|-------------------------------------|
| U.S. APPLICATION NO. (if known, see 37 CFR 1.5) 10/553,312 | INTERNATIONAL APPLICATION NO. PCT/EP2004/003377 | ATTORNEY'S DOCKET NUMBER 1-17149 |
|---|--|-------------------------------------|

20. Other items or information:

Copy of 371 Formalities Letter; Response to Notification of Missing Requirements; return card;
 Form PTO/SB08A & SB08B with copies of foreign patent documents

| The following fees have been submitted | | | CALCULATIONS | PTO USE ONLY | |
|---|--------------|---|--------------------------------------|--------------|--------|
| 21. <input type="checkbox"/> Basic national fee (37 CFR 1.492(a))..... \$300 | | | \$ - | | |
| 22. <input type="checkbox"/> Examination fee (37 CFR 1.492(c)) If the written opinion prepared by ISA/US or the International preliminary examination report prepared by IPEA/US indicates all claims satisfy provisions of PCT Article 33(1)-(4)..... \$0 All other situations..... \$200 | | | \$ - | | |
| 23. <input type="checkbox"/> Search fee (37 CFR 1.492(b)) If the written opinion of the ISA/US or the International preliminary examination report prepared by IPEA/US indicates all claims satisfy provisions of PCT Article 33(1)-(4)..... \$0 Search fee (37 CFR 1.445(a)(2)) has been paid on the international application to the USPTO as an International Searching Authority..... \$100 International Search Report prepared by an ISA other than the US and provided to the Office or previously communicated to the US by the IB..... \$400 All other situations..... \$500 | | | \$ - | | |
| TOTAL OF 21, 22 and 23 = | | | \$ - | | |
| <input type="checkbox"/> Additional fee for specification and drawings filed in paper over 100 sheets (excluding sequence listing in compliance with 37 CFR 1.821(c) or (e) or computer program listing in an electronic medium) (37 CFR 1.492(j)). The fee is \$250 for each additional 50 sheets of paper or fraction thereof. | | | | | |
| Total Sheets | Extra Sheets | Number of each additional 50 or fraction thereof (round up to a whole number) | RATE | | |
| - 100 = | /50 = | 0 | x \$250 | \$ - | |
| Surcharge of \$130.00 for furnishing any of the search fee, examination fee, or the oath or declaration after the date of commencement of the national stage (37 CFR 1.492(h)). | | | \$ 130 | | |
| CLAIMS | | | NUMBER FILED | NUMBER EXTRA | |
| Total claims | | | - 20 = | x \$ 50 | \$ - |
| Independent claims | | | - 3 = | x \$200 | \$ - |
| MULTIPLE DEPENDENT CLAIM(S) (if applicable) | | | | + \$360 | \$ - |
| | | | TOTAL OF ABOVE CALCULATIONS = | | \$ 130 |
| <input type="checkbox"/> Applicant claims small entity status. See 37 CFR 1.27. Fees above are reduced by ½. | | | SUBTOTAL = | | \$ 130 |
| Processing fee of \$130.00 for furnishing the English translation later than 30 months from the earliest claimed priority date (37 CFR 1.492(i)). | | | + | | \$ - |
| | | | TOTAL NATIONAL FEE = | | \$ 130 |
| Fee for recording the enclosed assignment (37 CFR 1.21(h)). The assignment must be accompanied by an appropriate cover sheet (37 CFR 3.28, 3.31). \$40.00 per property | | | + | | \$ - |
| | | | TOTAL FEES ENCLOSED = | | \$ 130 |
| | | | Amount to be refunded: | \$ | |
| | | | Amount to be charged | \$ | |

10/13/2005 GFERFY1 00000000 10553312

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130.00 0P

- a. A check in the amount of \$ 130.00 to cover the above fees is enclosed.
- b. Please charge my Deposit Account No. _____ in the amount of \$ _____ to cover the above fees.
A duplicate copy of this sheet is enclosed.
- c. The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account No. 13-1816. A duplicate copy of this sheet is enclosed.
- d. Fees are to be charged to a credit card. **WARNING:** Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.

NOTE: Where an appropriate time limit under 37 CFR 1.495 has not been met, a petition to revive (37 CFR 1.137(a) or (b)) must be filed and granted to restore the international Application to pending status.

SEND ALL CORRESPONDENCE TO:

Customer Number 001678

Marshall & Melhorn, LLC

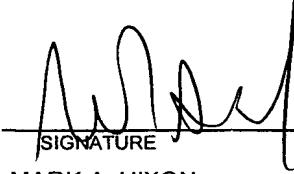
Four SeaGate - 8th Floor

Toledo, Ohio 43604

Phone: 419-249-7114

Fax: 419-249-7151

October 5, 2006



SIGNATURE
MARK A. HIXON
NAME

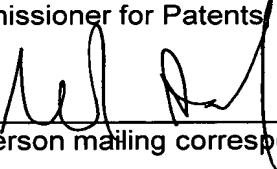
44,766
REGISTRATION NUMBER

CERTIFICATE UNDER 37 CFR 1.10 OF MAILING BY "EXPRESS MAIL"

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Date of Deposit October 10, 2006

I hereby certify that this correspondence is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 CFR 1.10 on the date indicated above and is addressed to Mail Stop PCT, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.



Signature of person mailing correspondence

Mark A. Hixon

Typed name of person mailing correspondence

RESPONSE TO NOTIFICATION OF MISSING REQUIREMENTS
UNDER 35 USC 371

U.S. Application Number 10/553,312

International Appln. No. PCT/EP2004/003377 filed 31 March 2004

Earliest Priority Date Claimed: 16 April 2003

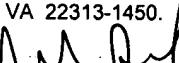
Title: Microreactor Composed of Plates and Comprising a Catalyst

Inventors: Georg Markowz et al

Attorneys: Marshall & Melhorn, LLC

Attorney Docket No: 1-17149

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I hereby certify that this correspondence is being deposited with the United States
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(Signature of person mailing correspondence)

Mark A. Hixon

(Typed name of person mailing correspondence)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

| | | |
|--|---|-------------------------|
| In re Application of: GEORG MARKOWZ et al |] | Group Art Unit: |
| U.S. Application No. 10/553,312 |] | Examiner: |
| Filing Under 35 U.S.C. 371 in the DO/EO/US of PCT/EP2004/003377 filed 31 March 2004 |] | |
| For: MICROREACTOR COMPOSED OF PLATES AND COMPRISING A CATALYST |] | Attorney Docket 1-17149 |

October 10, 2006

Mail Stop PCT
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

RESPONSE TO NOTIFICATION OF MISSING REQUIREMENTS UNDER 35 USC 371

Honorable Sir:

In response to the "Notification of Missing Requirements Under 35 USC 371 in
the United States Designated/Elected Office (DO/EO/US)" dated August 15, 2006 (copy
attached), enclosed is the fully executed Combined Declaration and Power of Attorney
document to complete the missing requirements in the above-captioned application
which was filed in the U.S. Patent and Trademark Office, PCT Branch, on October 14,
2005, under 35 USC 371.

Also enclosed is an Information Disclosure Statement, Forms SB/08A and SB/08B, with copies of the cited foreign patent documents.

A check in the amount of \$130.00 is attached to cover the requisite fee for late filing of the executed Declaration.

Please note on the fully executed Combined Declaration and Power of Attorney document that two of the inventors have new addresses, both of which should be made of record in the U.S. Patent and Trademark Office:

- the fourth inventor, Michael Jucys' new address is: Schmiedestr. 3, 64823 Groß-Umstadt (Gross-Umstadt), 64823 Germany; and
- the sixth inventor, Armin Lange de Oliveira's new address is: Bergheimerstr. 133, 69115 Heidelberg, Germany.

Please charge any additional fees due or credit any overpayment to Deposit Account No. 13-1816.

Respectfully submitted,



Mark A. Hixon
Registration No. 44,766

ATTORNEYS

Customer Number 001678
MARSHALL & MELHORN, LLC
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Toledo, Ohio 43604

Phone: (419) 294-7114
Fax: (419) 249-7151



UNITED STATES PATENT AND TRADEMARK OFFICE

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|-------------------------------|-----------------------|------------------|
| U.S. APPLICATION NUMBER NO. | FIRST NAMED APPLICANT | ATTY. DOCKET NO. |
| 10/553,312 | Georg Markowz | 1-17149 |
| INTERNATIONAL APPLICATION NO. | | |
| PCT/EP04/03377 | | |
| I.A. FILING DATE | PRIORITY DATE | |
| 03/31/2004 | 04/16/2003 | |
| CONFIRMATION NO. 1724 | | |
| 371 FORMALITIES LETTER | | |
| *OC000000020015462* | | |

Date Mailed: 08/15/2006

NOTIFICATION OF MISSING REQUIREMENTS UNDER 35 U.S.C. 371 IN THE UNITED STATES DESIGNATED/ELECTED OFFICE (DO/EO/US)

The following items have been submitted by the applicant or the IB to the United States Patent and Trademark Office as a Designated / Elected Office (37 CFR 1.495).

- Copy of the International Application filed on 10/14/2005
- English Translation of the IA filed on 10/14/2005
- Copy of the International Search Report filed on 10/14/2005
- Preliminary Amendments filed on 10/14/2005
- Request for Immediate Examination filed on 10/14/2005
- U.S. Basic National Fees filed on 10/14/2005
- Priority Documents filed on 10/14/2005
- Power of Attorney filed on 10/14/2005

The applicant needs to satisfy supplemental fees problems indicated below.

The following items **MUST** be furnished within the period set forth below in order to complete the requirements for acceptance under 35 U.S.C. 371:

- Oath or declaration of the inventors, in compliance with 37 CFR 1.497(a) and (b), identifying the application by the International application number and international filing date.
- To avoid abandonment, a surcharge (for late submission of filing fee, search fee, examination fee or oath or declaration) as set forth in 37 CFR 1.492(h) of \$130 for a non-small entity, must be submitted with the missing items identified in this letter.

SUMMARY OF FEES DUE:

Total additional fees required for this application is \$130 for a Large Entity:

AUG 21 2006

- \$130 Surcharge.

ALL OF THE ITEMS SET FORTH ABOVE MUST BE SUBMITTED WITHIN TWO (2) MONTHS FROM THE DATE OF THIS NOTICE OR BY 32 MONTHS FROM THE PRIORITY DATE FOR THE APPLICATION, WHICHEVER IS LATER. FAILURE TO PROPERLY RESPOND WILL RESULT IN ABANDONMENT.

The time period set above may be extended by filing a petition and fee for extension of time under the provisions of 37 CFR 1.136(a).

Applicant is reminded that any communications to the United States Patent and Trademark Office must be mailed to the address given in the heading and include the U.S. application no. shown above (37 CFR 1.5)

*A copy of this notice **MUST** be returned with the response.*

SHELBY J VIGIL

Telephone: (703) 308-9140 EXT 224

PART 1 - ATTORNEY/APPLICANT COPY

| U.S. APPLICATION NUMBER NO. | INTERNATIONAL APPLICATION NO. | ATTY. DOCKET NO. |
|-----------------------------|-------------------------------|------------------|
| 10/553,312 | PCT/EP04/03377 | 1-17149 |

FORM PCT/DO/EO/905 (371 Formalities Notice)